

WHAT IS CLAIMED IS:

1. An electroluminescence display device having a plurality of pixel regions aligned according to a 5 predetermined rule, each having a light emitting region, wherein

the plurality of pixel regions are respectively correlated to particular color components,

10 at least a pixel region correlated to one color component among the plurality of color components are formed having a different area from that of a pixel region correlated to another color component, and

15 at least a light emitting region correlated to one color component is formed within the pixel region such that a length thereof in a first direction is identical to a corresponding length of the pixel region and that another length thereof in a second direction which intersects the first direction is shorter than a corresponding length of the pixel region.

20 2. The device according to claim 1, wherein

the plurality of pixel regions are respectively correlated to one of three colors, and

an area of the pixel region differs depending on a color to which the pixel region is correlated.

25

3. The device according to claim 1, wherein

the plurality of pixel regions correlated to the respective color components are formed such that lengths of

the plurality of pixel regions in either the first direction or the second direction are identical.

4. The device according to claim 3, wherein

5 a plurality of signal lines are provided along an alignment of a plurality of pixel regions, and

the plurality of signal lines are provided apart from the plurality of pixel regions by a predetermined distance.

10 5. The device according to claim 3, wherein

a plurality of driving power source lines are provided along an alignment of the plurality of pixel regions, and

the plurality of driving power source lines are provided apart from the plurality of pixel regions by a predetermined

15 distance.

6. The device according to claim 2, wherein

a length in the first direction of the pixel region is determined according to a change over time of a characteristic 20 of a light emissive material for each color component.

7. A pattern layout method for use with an electroluminescence display device having a plurality of pixel regions aligned according to a predetermined rule, each 25 having a light emitting region, comprising the steps of:

determining a length in a first direction of the pixel region correlated to a color component, according to a change over time of a characteristic of a light emissive material

for the color component,

determining lengths in a second direction of the pixel regions, identical among the plurality of pixel regions, the second direction intersecting the first direction, and

5 determining a light emitting region in each pixel region, such that a length thereof in either the first direction or the second direction is identical to a corresponding length of the pixel region and that a length thereof in another direction is shorter than or equal to a corresponding length
10 of the pixel region.

8. The method according to claim 7, wherein

the layout of the light emitting region is reconfigured by altering the length of the light emitting region in another
15 direction according to a change of a characteristic of a light emissive material of the light emitting region accompanying change of the light emissive material.

9. The method according to claim 8, wherein

20 the characteristic of the light emissive material is a characteristic concerning how the light emissive material changes.

10. The method according to claim 8, wherein

25 the characteristic of the light emissive material includes a service life of the light emissive material.

11. The method according to claim 8, wherein

the characteristic of the light emissive material includes a light emission efficiency of the light emissive material.

5 12. An electroluminescence display device having a plurality of pixel regions aligned according to a predetermined rule, each having a light emitting region, arranged according to a predetermined rule, wherein

10 the plurality of pixel regions are respectively correlated to particular color components,

a pixel region correlated to a first color component and a pixel region correlated to a second color component are formed having an identical area,

15 a pixel region correlated to a third color component is formed having a different area from the area of the pixel regions respectively correlated to the first color component and to the second color component, and

20 a light emitting region formed in at least a pixel region correlated to one color component has a length in a first direction which is identical to a corresponding length of the pixel region and a length in a second direction which intersects the first direction, which is shorter than a corresponding length of the pixel region.

25 13. The device according to claim 12, wherein

the plurality of pixel regions correlated to the respective color components are formed such that lengths of the plurality of pixel regions in either the first direction

or the second direction are identical.

14. The device according to claim 13, wherein
a plurality of signal lines are provided along an
5 alignment of a plurality of pixel regions, and
the plurality of signal lines are provided apart from
the plurality of pixel regions by a predetermined distance.

15. The device according to claim 13, wherein
10 a plurality of driving power source lines are provided
along an alignment of the plurality of pixel regions, and
the plurality of driving power source lines are provided
apart from the plurality of pixel regions by a predetermined
distance.

15
16. The device according to claim 13, wherein
a length in the first direction of the pixel region is
determined according to a change over time of a characteristic
of a light emissive material for each color component.

20
17. A pattern layout method for used in an
electroluminescence display device having a plurality of
pixel regions aligned according to a predetermined rule, each
having a light emitting region, comprising the steps of:
25 determining identical lengths in a first direction of
the pixel regions respectively correlated to color components
emitted from a first light emissive material and from a second
light emissive material, the first light emissive material

and the second light emissive material having characteristics with the smallest difference between each other;

determining a different length in the first direction of the pixel region correlated to a color component emitted from a third light emitting material, from the lengths in the first direction of the pixel regions respectively correlated to the color components emitted from the first light emissive material and to the second light emissive material;

10 determining identical lengths in a second direction which intersects the first direction, of the pixel regions respectively correlated to color components emitted from the first light emissive material, the second light emissive material, and the third light emissive material; and

15 determining a light emitting region in each pixel region, such that a length thereof in either the first direction or the second direction is identical to a corresponding length of the pixel region and that a length thereof in another direction is shorter than or equal to a corresponding length of the pixel region.

20

18. The method according to claim 17, wherein

the layout of the light emitting region is reconfigured by altering the length of the light emitting region in another direction according to a change of a characteristic of a light 25 emissive material of the light emitting region accompanying change of the light emissive material.

19. The method according to claim 18, wherein

the characteristic of the light emissive material is a characteristics concerning how the light emissive material changes.

5 20. The method according to claim 19, wherein
the characteristic of the light emissive material includes one or both of a service life or a light emission efficiency of the light emissive material.

10